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ADJUSTABLE DECORATIVE SURROUND FOR A FIREPLACE

Background of the Invention

Field of the Invention

The present invention generally relates to decorative surrounds, and more particularly relates to a decorative surround for a fireplace that is adjustable in size.

Related Art

Decorative surrounds for use with a fireplace are commonly used to enhance the look and feel of a fireplace and also function to cover otherwise unsightly features of the fireplace such as fireplace vents or the unfinished interface between the fireplace and the surrounding wall structure. Such surrounds typically include one top member that extends horizontally above the fireplace, and two side members that extend vertically along opposing sides of the fireplace. The horizontal and side members are often secured together as a single assembled piece that is mounted to the wall structure surrounding the fireplace. In other applications, the separate members may be individually mounted to the wall structure surrounding the fireplace.

Known decorative fireplace surrounds are typically sized for a single set of fireplace dimensions. For example, one surround may be sized for a fireplace having a width and height dimensions of 40 x 32 in., while another surround may be sized for a fireplace having dimensions of 44 x 36 in. Since a different surround is required for each different fireplace size, maintaining an inventory of fireplace surrounds for all customer needs can be costly and require large amounts of space. Furthermore, fireplaces with unique, non-standard sizes may require a custom made surround to properly fit the fireplace.

Summary of the Invention

The present invention relates to decorative surrounds for use with a heating source such as a fireplace. The surrounds are adjustable in size to fit a range of

fireplace heights and widths. The surrounds may be adjustable in either or both of the width and height of the surround using a variety of different adjustment configurations. In general, surrounds of the present invention include at least one horizontal member that extends across a top portion of a fireplace, and two vertical side member that extend along opposing sides of the fireplace. The height of the surround may be adjusted in several different ways. For example, the side members may be movable relative to the horizontal member to adjust the height of the surround, or the surround may include overlap members coupled to the side members wherein movement of the side members relative to the overlap members adjusts a height of the surround. Further, sections of the side members may be interchangeable with longer or shorter side member pieces to adjust the surround height. The width of the surround may also be adjusted in several ways. For example, the location along the horizontal member where the side members are coupled to the horizontal member when the surround is assembled may adjust the width of the surround. Further, the surround may include two horizontal members, and relative movement of the two horizontal members to each other adjusts the surround width. Another overlap member may be useful for such a width adjustment configuration to cover the spacing between the separated horizontal members.

On aspect of the invention relates to an adjustable surround for use with a fireplace that includes a first member having first and second ends, and a second member having first and second ends. The first and second members are oriented generally horizontally with the first ends facing each other, and a distance between the second ends of the first and second members defines a width of the surround. The first and second members are movable relative to each other to vary the width of the surround.

Another aspect of the invention relates to a width adjustment surround for a fireplace that includes first and second top members arranged end to end in a generally horizontal orientation and defining a width of the surround. The first and second top members are movable relative to each other to alter the width of the surround.

A further aspect of the invention relates to a height adjustment surround for a fireplace that includes first and second side members that extend generally vertically on opposing sides of a combustion chamber enclosure of the fireplace, and first and second overlap members configured to be coupled to respective first and second side members. Relative movement between the first and second side members and respective first and second overlap member adjusts a height of the surround.

Another aspect of the invention relates to a method of adjusting a size of a decorative surround for a fireplace. The surround has a height and a width and includes a top member oriented generally horizontally and having a width in a vertical direction and a length in the horizontal direction, and first and second side members extending generally vertically and being coupled to the top member. The method includes the step of moving the first and second side members across the width of the top member to adjust the height of the surround.

Another method of the present invention relates to a method of adjusting a size of a decorative surround for a fireplace. The surround has a width and includes first and second horizontal members that are oriented generally horizontally and are aligned end to end. The method includes the step of moving the first and second horizontal members relative to each other to adjust the width of the surround.

Another aspect of the invention relates to a method of adjusting a size of a decorative surround for a fireplace. The surround has a height and includes first and second side members that extend generally vertically along opposing sides of a combustion chamber enclosure of the fireplace, and first and second overlap members coupled to the first and second side members. The method includes the step of moving the first and second side members relative to respective first and second overlap members to adjust the height of the surround.

A further aspect of the invention relates to an adjustable size decorative surround for a fireplace that includes a top member oriented generally horizontally, and first and second side members extending generally vertically. Vertical movement of the first and second side members relative to the top member adjusts the size of the

surround. The surround may further include overlap members that cover portions of the top member and the first and second side members.

The above summary of the present invention is not intended to describe each disclosed embodiment or every implementation of the present invention. Figures in the detailed description that follow more particularly exemplify embodiments of the invention. While certain embodiments will be illustrated and described, the invention is not limited to use in such embodiments.

Brief Description of the Drawings

The invention may be more completely understood in consideration of the following detailed description of various embodiments of the invention in connection with the accompanying drawings, in which:

Figure 1 is a front perspective view of an example surround for a fireplace according to principles of the present invention;

Figure 2 is an exploded front perspective view of the surround shown in Figure 1;

Figure 3 is a front view of the surround shown in Figure 1;

Figure 4 is a top view of the surround shown in Figure 1;

Figure 5 is a side view of the surround shown in Figure 1;

Figure 6 is a bottom view of the surround shown in Figure 1;

Figure 7 is a rear view of the surround shown in Figure 1;

Figure 8 is an end view of one of the primary surround members shown in Figure 1;

Figure 9 is a front perspective view of the keystone shaped overlap member shown in Figure 1;

Figure 10 is a side view of the keystone member shown in Figure 9;

Figure 11 is a rear view of the keystone member shown in Figure 9;

Figure 12 is a bottom rear perspective view of the keystone member shown in Figure 9;

Figure 13 is a top rear perspective view of the keystone member shown in Figure 9;

Figure 14 is a front perspective view of a side overlap member shown in Figure 1;

Figure 15 is a top view of the side overlap member shown in Figure 1;

Figure 16 is a rear perspective view of the side overlap member shown in Figure 1;

Figure 17 is a rear view of a surround retaining bracket configured to be secured to one of the horizontal members shown in Figure 1;

Figure 18 is a side view of the retaining bracket shown in Figure 17;

Figure 19 is a rear perspective view of wall mounting bracket configured to support the surround retaining bracket shown in Figure 17;

Figure 20 is a rear view of the wall mounting bracket shown in Figure 19;

Figure 21 is a side view of the wall mounting bracket shown in Figure 19;

Figure 22 is a front perspective view of the surround shown in Figure 1 being mounted to a wall structure surrounding a fireplace;

Figure 23 is a partial perspective view of the surround shown in Figure 1 with a mantle shelf mounted on top of the surround;

Figure 24 is a front view of another example surround for a fireplace according to principles of the present invention;

Figure 25 is a partial exploded perspective view of the horizontal and side members of the surround shown in Figure 24;

Figure 26 is a front view of another example surround for a fireplace according to principles of the present invention;

Figure 27 is a rear view of the surround shown in Figure 26;

Figure 28 is a front view of another example surround for a fireplace according to principles of the present invention; and

Figure 29 is a rear view of the surround shown in Figure 28.

While the invention is amenable to various modifications and alternant forms, specifics thereof have been shown by way of example and the drawings and will be described in detail. It should be understood, however, that the intention is not to limit the invention to the particular embodiments described. On the contrary, the intention is to cover all modifications, equivalents, and alternatives falling within the spirit and scope of the invention.

Detailed Description of the Preferred Embodiment

The present invention generally relates to decorative surrounds for use with a heating source such as a fireplace. The surrounds are adjustable in size to fit a range of fireplace heights and widths. The surrounds may be adjustable in either or both of the width and height of the surround using a variety of different adjustment mechanisms and configurations. For example, the surround may include first and second horizontal members that are aligned end-to-end, and relative movement between the first and second horizontal members adjusts a width of the surround. A separate overlap member may be used to cover the ends of the first and second horizontal members that are facing each other so as to cover the spacing between the horizontal members. The surround may also include first and second vertically oriented side members that extend along opposing sides of a fireplace opening, and first and second overlap members coupled to respective first and second side members, wherein movement of the side members relative to the overlap members adjust the height of the surround.

As used herein, the term "surround" means any exposed structural surface that covers a portion of the front surface of a fireplace and/or the wall structure surrounding the fireplace, and provides a transition from the combustible material surrounding the fireplace (such as, for example, an interior wall) to the fireplace front surface. The "surround" may function as a door or similar structure that provides access to otherwise covered features of the fireplace. The "surround" may also function as a fireplace front that covers portions of the fireplace, for example, the fireplace viewing surface (e.g., glass), frame or louvers.

The phrase "viewing surface" is any surface through which at least a portion of an interior of a fireplace may be viewed. For example, a viewing surface may consist of a pane of translucent tempered or ceramic glass or high-temperature plastic positioned to cover at least a portion of an opening into the combustion chamber enclosure of a fireplace. The phrase "combustion chamber enclosure" may include any enclosure in which flames and/or heat are generated or simulated. The term "fastener" includes, for example, magnets, clamps, brackets, bolts, screws, and similar structures that secure together two or more members. The term "horizontal orientation" or a similar term as used with reference to orienting a device or structure is defined as aligning the longer side or length of the device or structure along a generally horizontal plane or axis. The term "vertical orientation" or a similar term as used with reference to orienting a device or structure is defined as aligning the longer side or length of the device or structure along a generally vertical plane or axis.

In general, reference to the height and width of the surround refers to the size of an inner opening defined by the surround that is intended to be aligned along the top and opposing sides of the fireplace. Typically, the height and width defined by the outer periphery of the surround has little relevance to proper sizing of the surround for a given fireplace. Although the surrounds shown in the figures of the application may be well suited for use with a fireplace, the principles of the invention may be applicable to surrounds for other heat generating units such as stoves or furnaces.

An example fireplace surround assembly 10 is shown and described with reference to Figures 1-21. Surround assembly 10 includes first and second horizontal members 12, 14, first and second side members 16, 18, first, second and third overlap members 20, 22, 24, first and second retaining brackets 26, 28, and a wall mounting bracket 30. The surround assembly 10 defines an inner opening 32 having a width W1 and a height H1 (see Figure 3).

Referring now to Figures 2 and 6, the first and second horizontal members each include first and second ends 40, 42, a front face 44, a top side 46, and a bottom side 48. The first and second horizontal members 12, 14 are aligned generally horizontally with the first ends 40 facing each other. Relative horizontal movement

between the first ends 40 adjusts the width W1 of surround assembly 10. The first overlap member 20 (described in further detail below) may be used to cover the spacing between the first ends 40 to provide an aesthetically pleasing look. A maximum width adjustment of surround assembly 10, which is defined by the spacing between first ends 40, is defined to be no greater than the smallest width W4 (see Figure 11) of the first overlap member 20. In one embodiment, the range of width adjustment for surround assembly 10 is about 4 to 18 inches, and more preferably about 5 to 12 inches, with a preferred width adjustment of about 7 inches. Other embodiments may have any number of different width adjustment ranges for any range of fireplace sizes.

The first and second side members 16, 18 include first and second ends 60, 62, a front face 64, an outer side 66, and an inner side 68. The first ends 60 are oriented generally downward facing and the second ends 62 are coupled to the second ends 42 of the first and second horizontal members 12, 14. The relative spacing between the inner sides 68 within inner opening 15 defines the width W1. In the example surround assembly 10 shown in Figures 1-21, the range of maximum to minimum width W1 is about 37 to about 45 inches.

The first and second horizontal members 12, 14 and first and second side members 16, 18 may have the same design (e.g., shown in Figure 16), or may have different designs in different embodiments. Likewise, the members 12, 14, 16, 18 may be sized and shaped differently than shown in Figures 1-16 while providing the same or similar functions and advantages described herein.

The first and second side members 16, 18 may be coupled to the first and second horizontal members in a variety of different ways. For example, the side and horizontal members may be secured together with fasteners preferably at a back side of the fireplace surround to avoid viewing at the front surface. Depending on the materials of surround assembly 10, the side and horizontal members may be welded or secured together with adhesives, or they may be molded together as a single piece or molded as separate pieces using a moldable material such as a ceramic or other heat-resistant fiber with a binder that is compression or vacuum molded or caste. The overlap members of surround assembly 10 may likewise be molded from a moldable material. The use of

ceramic molded materials in a fireplace surround is discussed in further detail in U.S. Published Patent Application No. 2003-0049575-A1 filed on February 8, 2001 and entitled COMPRESSION MOLDED INORGANIC FIBER ARTICLES, AND METHODS AND COMPOSITION USED IN MOLDING SAME, which application is incorporated herein by reference in its entirety.

Surfaces of the surround assembly 10 may be painted or stained to match the surrounding décor of the room or fireplace structure. Staining a ceramic molded material typically provides a marbleized look. Features of surround assembly 10 can also be manipulated in other ways. For example, patterns, designs, initials, or other decorative modifications can be made to the side, horizontal and overlap members of surround assembly 10 prior to or after installation. Functional modifications can also be made. For example, holes or openings can be created in the side, horizontal and overlap members of surround assembly 10 to allow for air passage around the fireplace.

Referring to Figure 22, coupling of the surround assembly 10 to a front panel 3 of a fireplace 2 can cover any gaps (e.g., gap 6) between an existing structure 7 (e.g., a wall or masonry) and the fireplace 2. In other embodiments, surround assembly 10 can been sized to fit within an opening in a structure 7 defined by an edge 8 surrounding the fireplace. In still further embodiments, surround assembly 10 may be positioned over a vent 4 of an air plenum system of the fireplace 2 in some embodiments. Holes or openings formed in the surround assembly 10 may permit air passage out of the air plenum system.

The height H1 of the inner opening 15 is defined by the distance from bottom side 48 of the first and second horizontal members 12, 14 to a floor structure in front of the fireplace. In some embodiments, the surround assembly includes a separate horizontal cross member (not shown) that extends between side members 16, 18 near the bottom of the fireplace. When such a separate horizontal cross member is present, the height of the inner opening may be defined by the distance between the bottom side 48 of the first and second horizontal members 12, 14 and a top side of the separate horizontal member.

In one embodiment, the range of height adjustment for surround assembly 10 is about 2 to 8 inches, and more preferably about 4 to 6 inches, with a preferred width adjustment of about 6 inches. In the example surround assembly 10 shown in Figures 1-21, the range of maximum to minimum height H1 is about 30 to about 36 inches. Other embodiments may have any number of different height adjustment ranges for any range of fireplace sizes.

The front faces 44 and 64 of the horizontal and side members 12, 14, 16, 18 may include a decorative design having a cross-section as shown in Figures 6 and 8. The design pattern shown in Figures 1-8 is just one of any number of designs that could be formed in the horizontal and side members. One possible advantage of using a molding process to form the horizontal and side members of surround assembly 10 is that ornate and complex designs may be molded into the surround at a relatively low cost as compared to using traditional materials and methods of forming such designs.

Referring now to Figure 9-13, the first overlap member 20 includes first and second sides 80, 82, top and bottom sides 84, 86, an inner contoured or track surface 88, a front face 90, and a minimum width W4 (see Figure 11). First overlap member 20 defines a "keystone" style configuration in which an upper portion of the overlap member has a greater width than a lower portion (where W4 is measured). Further, as shown in Figure 10, the front face 64 is slanted between the top and bottom sides 84, 86 from the front towards the back of the overlap member 20. Although first overlap member 20 has a specific design with certain slanted surfaces and varying widths, other embodiments may include a first overlap member with a more simple design such as a square or rectangular shape, or may include a more ornate and complex design than the embodiment shown in Figures 9-13.

The inner contoured surfaces 88 of first and second sides 80, 82 match at least the contours formed in the front face 44 of the first and second horizontal members 12, 14. Matching of the contoured surfaces 88 with the contours of front faces 44 provide a seamless appearance and ease of movement between the overlap member 20 and the first and second horizontal members 12, 44 (shown in Figure 1), while

improving the ability of the members 12, 14, 20 to maintain engagement with each other even though relative movement is possible between members 12, 14, 20.

Referring now to Figures 14-16, the second and third overlap members 22, 24 include inner and outer sides 100, 102, top and bottom sides 104, 106, inner contoured or track surfaces 108, and a front face 110. The bottom side 106 is typically aligned adjacent a floor structure in front of the fireplace. Preferably, the bottom side 106 contacts the floor structure to give the appearance that the second and third overlap members support the weight of the remaining features of the surround assembly 10. The top side 104 is adjacent the second end 60 of the first and second side members 16, 18. The inner contoured surfaces 108 match the contours of the front face 64 of the first and second side members 16, 18, thereby providing a seamless appearance between the side members 16, 18 and the second and third overlap members 22, 24.

Although the second and third overlap members 22, 24 have a relatively simple design and appearance, these overlap members may include alternative designs that are more simple or more ornate and complex than those shown in Figure 14-16.

The first, second and third overlap members 20, 22, 24 may be made of any material suitable for use around a fireplace, such as, for example, wood, metal, composites, or a moldable material such as a ceramic or other heat-resistant fiber and a binder that is compression or vacuum molded as discussed above. Furthermore, the first, second and third overlap members 20, 22, 24 may include retaining features such as a snap fit connection, a bracket, a latch, or a fastener that temporarily or permanently secures the overlap member to the respective horizontal or side member 12, 14, 16, 18 once the surround assembly has been adjusted into its final width and height.

Referring now to Figures 2, 17 and 18, first and second retaining brackets 26, 28 include a surround mount portion 120 and a wall engagement portion 122. The surround mount portion 120 is secured to the first and second horizontal members 12, 14 as shown in Figure 7. The wall engagement portion 122 extends outwardly away from the first and second horizontal members to engage the wall mounting bracket 30 or other structure that is coupled to the front surface of the fireplace or the wall structure adjacent the fireplace.

Referring now to Figures 19-22, an example wall mounting bracket 30 is shown including a wall mount portion 130 and a surround engagement portion 132. The wall mount portion 130 is configured to engage and be secured to the front surface 3 of the fireplace 2 or the wall structure 7 adjacent to the fireplace 2, and the surround engagement portion 132 extends outward and upward from the wall structure to engage the wall engagement portion 122 of the first and second retaining brackets 26, 28. Thus, when the surround assembly 10 is completely assembled and the retaining brackets 26, 28 are engaging the wall mounting bracket 30, the surround assembly 10 hangs on the wall. As a result, the weight of the surround assembly 10 is not supported on the floor structure in front of the fireplace and the second and third overlap members 22, 24 carry little to no weight of the surround assembly components. In other embodiments, the weight of the surround assembly 10 may be supported on the floor structure via the side members 16, 18 or the overlap members 22, 24. If the surround assembly is supported by the floor structure, the retaining brackets 26, 28, 30 may be used to hold the surround assembly 10 against the wall structure 7 or may carry little to no weight of the surround assembly 10.

Referring now to Figure 23, a separate mantle shelf 2 may be mounted to the top side 46 of the first and second horizontal members 12, 14 to provide an enhanced mantle appearance for the surround assembly 10. The design of mantle shelf 2 shown in Figure 23 is merely exemplary. Other mantle embodiments may include, for example, a combined overlap member and mantle structure as a single piece (not shown).

Referring now to Figures 24 and 25, an alternative fireplace surround assembly 200 is shown including a first horizontal member 212, and first and second side members 216, 218 that define an opening having a width W2 and a height H2 sized for a fireplace 210. The first horizontal member includes first, second and third engagement recesses 202, 204, 206 and the first and second side members 216, 218 include an engagement member 208. Adjusting the engagement member 208 into different engagement recesses 202, 204, 206 adjusts the width W2 of the surround 200. With the configuration shown in Figure 25, the horizontal member 212 may have

predetermined fixed positions into which the first and second side members 216, 218 are adjustable to vary the width of the surround assembly. Different embodiments may include fewer or more engagement recesses and different engagement member designs while adhering to principles illustrated in Figures 24 and 25.

Referring now to Figures 26 and 27, another example fireplace surround assembly 300 is shown including first and second horizontal members 312, 314, first and second side members 316, 318, a first overlap member 320, and engagement member 308, and first, second and third engagement recesses 302, 304, 306. The horizontal and side members 312, 314, 316, 318 define an inner opening having a width W3 and a height H3 that are adjustable. The first and second horizontal members 312, 314 may be movable relative to each other similar to the embodiment shown in Figures 1-16 within a range of relative movement defined by a minimum width W5 of the first overlap member 320.

A height of the surround assembly 300 may be adjusted by moving the side members 316, 318 relative to the horizontal members 312, 314. Securing the side members in a fixed position relative to the horizontal members may be accomplished using any number of fastening and attachment mechanisms such as the engagement member 308 and engagement recesses 302, 304, 306 shown in Figure 26. The engagement member 308 may be supported by brackets 330, 332 and extend through one of the recesses 302, 304, 306 of the side members 316, 318. A range of height adjustment of height H3 may be defined by a height H5 of the first and second horizontal members 312, 314 and the position and number of recesses 302, 304, 306.

Referring now to Figures 28 and 29, another example fireplace surround assembly 400 is shown including a horizontal members 412, first and second side members 416, 418, first and second overlap members 420, 422, and a mounting bracket 428. The horizontal and side members 412, 416, 418 define an inner opening having a width W4 and a height H4 that are adjustable. The horizontal member 412 may be movable relative to the first and second overlap members 420, 422 to adjust the width W4 within a range of relative movement defined by at least a portion of the combined widths W6 of the first and second overlap members 420, 422. The side members 416,

418 may be movable relative to the first and second overlap members 420, 422 to adjust the height H4 within a range of relative movement defined by at least a portion of the height H6 of the first and second overlap members 420, 422.

The adjustment features of Figures 1-29 may be used alone or in combination with each other or other adjustment features suitable for adjusting a height and width of the surround inner opening.

The example decorative surrounds described above and shown in Figure 1-29 may also include at least one line of perforated markings (not shown) at ends of the top horizontal members and the vertical side members. These perforated markings may be used to reduce the length of the top or side members by a predetermined amount defined by the position of the perforations. Such perforations may be formed in a rear facing surface of the member so as to be hidden from view when the surround is properly mounted. Removing some of the length of the top and side members may increase the range of adjustment sizes of the surround.

A method of adjusting a size of a decorative surround for a fireplace may relate to an adjustable surround that defines an opening having a height and a width. The surround includes first and second horizontal members arranged generally horizontally end-to-end, first and second side members extending generally vertically and being coupled to respective first and second horizontal members, and first and second overlap members coupled to the first and second side members. The method may include the steps of moving the first and second horizontal members relative to each other to adjust the width of the surround, and moving the first and second side members relative to respective first and second overlap members to adjust the height of the surround.

Another method of adjusting a size of a decorative surround for a fireplace relates to an adjustable surround having a height and a width, and including first and second side members extending generally vertically along opposing sides of a combustion chamber enclosure of the fireplace, and first and second overlap members coupled to the first and second side members. The method includes the step of moving the first and second side members relative to respective first and second overlap

members to adjust the height of the surround. The adjustable surround may also include a top member the extends generally horizontally, and the method may further include the step of moving the top member relative to the first and second overlap members to adjust the width of the surround.

The above described methods may further include the step of mounting the adjustable surround to a fireplace or a wall structure adjacent a fireplace. The mounting step may occur before or after the moving steps required to adjust the height and width of the surround. The methods may further include the step of fixing the positions of the side and horizontal (top) members relative to each other either before or after the mounting step.

The present invention should not be considered limited to the particular examples or materials described above, but rather should be understood to cover all aspecta of the invention as fairly set out in the attached claims. Various modifications, equivalent processes, as well as numerous structures to which the present invention may be applicable will be readily apparent to those of skill in the art to which the present invention is directed upon review of the instant specification.